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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

ORIGINAL
FILE

IN THE MATTER OF

ADMINISTRATION OF THE
NORTH AMERICAN NUMBERING
PLAN

CC DOCKET NO. 92-237

COMMENTS OF SOUTHWESTERN BELL CORPORATION

JAMES D. ELLIS
WILLIAM J. FREE
MARK P. ROYER
ONE BELL CENTER, RM 3524
ST. LOUIS, MO 63101-3099
(314) 331-2992

ATTORNEYS FOR
SOUTHWESTERN BELL CORPORATION

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SUMMARY

The NANP administrator will face a multitude of increasing numbering management responsibilities and, as such, the numbering administrator must be fully qualified and staffed with experienced personnel who have a detailed knowledge of the industry. Southwestern Bell Corporation ("SBC") supports the formation of an industry forum and advisory council to advise the Commission, the NANP administrator, and the industry on numbering issues and related standards.

Funding of the NANP and NANP administration should be changed to include funding from all recipients and users/beneficiaries of the numbering resources. No change in the numbering administrator should be made at this time. If a change in the numbering administrator is ordered, in no event should it take place prior to full interchangeable numbering code implementation.

Proposals for an internationally integrated numbering plan and administration are not currently viable, beyond what exists today with CCITT's E.164 and E.168 recommendations. Proposals beyond these recommendations fail to recognize that individual nations will continue to develop numbering schemes to meet their own specific requirements and situations.

Feature Group D CIC codes should be expanded. No realistic technical alternative exists to replace the

planned four-digit format. Rather than a mandated Feature Group D expansion implementation process, some latitude for deployment should be afforded in the process. Any Commission action that would alter the implementation process should be taken immediately. Also, a recovery mechanism for Feature Group D code expansion costs should be established.

Decisions on PCS numbering and local exchange numbering portability should not be made at this time. PCS technology is evolving and its development should not be impeded or limited by premature decisions on PCS numbering. Local exchange number portability, if required, will be an expensive and time-consuming process and the Commission should consider whether the perceived need for such portability is outweighed by the associated expense. Moreover, the technology to permit such portability does not currently exist, and it would be premature to require local exchange number portability without an in place and available implementation technology.

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In the Matter of)
)
Administration of the) CC Docket No. 92-237
North American Numbering)
Plan)

COMMENTS OF SOUTHWESTERN BELL CORPORATION

Southwestern Bell Corporation ("SBC"), on behalf of its operating subsidiaries and affiliates, submits these comments in response to the Commission's *Notice of Inquiry* ("NOI") released October 29, 1992 in the above referenced matter.

The NOI seeks comment on a number of issues relating to the administration of the North American Numbering Plan ("NANP"). Comment is also sought on numbering schemes for Personal Communication Services ("PCS"), and on local exchange number portability.

- I. THE NANP ADMINISTRATOR MUST BE QUALIFIED TO MANAGE A MULTITUDE OF RESPONSIBILITIES. NO CHANGE IN THE NUMBERING ADMINISTRATOR SHOULD BE MADE AT THIS TIME, AND IN NO EVENT EARLIER THAN INTERCHANGEABLE NUMBERING CODE IMPLEMENTATION.

The NANP is currently administered primarily by Bell Communications Research ("Bellcore"). Prior to the AT&T divestiture, numbering was principally administered by the Bell System. The NOI notes that the NANP is the "envy of the rest of the world" and that the administration of the numbering plan by the Bell System and, subsequently, Bellcore, "seems to have served the nation well." A cited

example is the formulation of a plan to use interchangeable codes as early as 1962.¹

The NANP administration involves certain minimum requirements, characteristics, and responsibilities. The NANP administrator must be equipped to deal with the fact that numbering resources and requirements will continue to evolve dramatically, as they have for many years. This evolution requires that the administrator be sufficiently staffed with experienced and knowledgeable personnel who possess:

- The ability to combine strong project planning skills, organizational management experience, and interpersonal communication and negotiation skills in relation to numbering issues.
- The ability to have a clear understanding of the day-to-day business issues coupled with the capability to provide effective leadership for the industry concerning all aspects of numbering.
- The ability to understand the network--where it is, where it is going--and to effectively determine the legitimacy of numbering requests so as to manage limited number resources.
- The ability to establish strong liaisons with the FCC, Department of Commerce, Caribbean authorities, domestic and international standards bodies, and other regulatory agencies; and to serve as the initial central point of contact for the resolution of disputes for the assignment and administration of NANP resources.
- The necessary administrative staff to handle the legal, financial, technical, staffing, industry and regulatory issues relevant to the management of all numbering resources; and the necessary equipment, facilities, and billing arrangements

¹NOI, paras. 23 and 24.

associated with day-to-day management of all numbering resources.

- The responsibility to formulate proposals, with industry input, for all numbering resources under management, and the responsibility for NANP development, updates and industry negotiations for all code allocations.
- The responsibility for monitoring all associated code allocations (e.g., Numbering Plan Area ("NPA") codes, Carrier Identification Codes ("CICs"), Vertical Services Codes ("VSCs"), 800 and 900 codes, etc.).
- The responsibility for monitoring conformance with published numbering assignment guidelines, and for distributing the most current assignment guidelines to service providers.²

In addition, the NANP administrator will need to monitor, coordinate or participate in activities such as Time "T" and E.168 implementation, abbreviated access recommendations, and will be required to interface with and represent World Zone 1 interests in various international and other standards bodies. Accordingly, the administrator must have experienced personnel with a wide variety of knowledge and expertise.

Furthermore, the numbering administrator would benefit by having additional input from a broad range of interests.³ The process of obtaining this input could be as simple as adding staff and resources to those currently

²This list is not considered to be all encompassing.

³For example, the numbering considerations of the future will involve various industry segments including, among others, the following general groups: cellular, paging, personal communications, enhanced and information service providers, interexchange carriers, LECs, etc.

available or forming an advisory council composed of representatives from all segments of the industry to advise Bellcore or another administrator on the evolving and most pressing numbering issues.

Some parties have suggested that the current numbering administrator should be changed. No such change should be made at this time. The Commission notes that implementation of the interchangeable NPA format is scheduled for 1995, and that planning for such implementation has spanned a period of at least twenty years.⁴ All possible NPA codes have been assigned for use prior to 1995. If the numbering administrator were to be changed prior to interchangeable code implementation, there could be serious disruptions and delays in such implementation at a time when current numbering resources are approaching exhaustion. Thus, changing the administrator would not be in the public interest and, if such a change is ordered, in no event should it take place prior to full interchangeable numbering code implementation.

II. THE COMMISSION SHOULD SUPPORT THE CREATION OF AN INDUSTRY NUMBERING FORUM AND AN ADVISORY COUNCIL TO ADVISE THE NANP ADMINISTRATOR, THE INDUSTRY, AND THE COMMISSION ON NUMBERING ISSUES.

A. NUMBERING FORUM

There are currently too many industry groups addressing numbering issues. In order for there to be

⁴NOI, para. 42.

consistency and full industry participation, as well as the creation of clear and concise guidelines, there should be only one industry numbering forum responsible for addressing those numbering issues that are not addressed in the standards arena. This forum could and should be open to all industry participants, similar to the existing ICCF (Industry Carrier Compatibility Forum). The numbering forum would (at a minimum) develop industry guidelines and standardized assignment procedures, provide input on the NANP's evolution, be responsible for issue recognition, and provide recommendations to the NANP administrator on various numbering issues.

B. ADVISORY COUNCIL

To ensure that access is available to all segments of industry, the numbering administrator should interface with an industry advisory council. While the advisory council should be representative of all major industry segments, it should be limited in size. Not every company can have its own individual representative on the council. A council of that size would be unmanageable, unlikely to achieve consensus, and would simply not work effectively or efficiently. Consolidated representation on the council of certain similarly situated industry segments should be encouraged, if not required.⁵

⁵For example, industry associations like the Cellular Telecommunications Industry Association ("CTIA") and other associations would be likely sources of representation and

The advisory council would work with the NANP administrator to ensure that a fair and equitable dispute resolution process is available, and that other significant issues are resolved on a timely basis.⁶ However, to effectively realize the benefits that could be derived from the use of an advisory council, different industry participants must be willing to cooperate with each other. Without such cooperation, resolution of most issues would still ultimately reside with the FCC. If that is to be the case, there would be no real benefit from the creation of an advisory council, since there would in essence be no change from how the NANP is administered today. Such a result would not be welcomed by the industry to the extent that it would simply add another level of bureaucracy, rather than create an effective and efficient process which is the result generally desired by the industry.

input to the council.

⁶To help assure the timely resolution of any disputes, SBC recommends that rules be established to this end. For example, the advisory council should be required to resolve any issues brought before it within a reasonable time frame. In most other respects, there should be no change in the current manner in which the FCC oversees the entity charged with NANP administration. Resolution of numbering issues is best left to the industry and to the industry players who are most aware of the practical ramifications of their decisions and policies.

III. THE NANP AND NANP ADMINISTRATION SHOULD BE FUNDED BY ALL RESOURCE RECIPIENTS AND BENEFICIARIES.

The Commission seeks comment on how the costs of national NANP administration should be handled.⁷ Funding for NANP administration is currently provided primarily through Bellcore, its funding shareholders, and their customers. This funding mechanism must change regardless of whether Bellcore or another administrator is selected.

All user entities who benefit from planning, implementation and administration of numbering resources need to equitably participate in the funding of the NANP and its administration.⁸ In addition, a cost recovery mechanism should be established for the planning, administration and implementation of the numbering resources. Specifically, the Commission should ensure that carriers and other user entities are provided with adequate means under the Commission's rules to recover the costs associated with making required network numbering changes.

IV. AN INTERNATIONALLY INTEGRATED NUMBERING PLAN AND ADMINISTRATION IS NOT PRACTICAL.

The Commission also seeks comment on the costs and benefits of an internationally integrated numbering plan and

⁷NOI, para. 35.

⁸Notwithstanding this principle, funding levels and costs to those who currently fund the process should be recognized and no increase in those costs should be permitted without a demonstration of value added benefits to such participants.

integrated centralized administration.⁹ While such a proposal may seem attractive, it is not likely, for political and other reasons, to be practical at this point beyond the broad agreed upon formats of today.

The CCITT Study Group II, which produces recommendations in this area, is a treaty type of organization. Its recommendations on numbering focus only on the required numbering structure to allow for international interworking (e.g., E.164, and E.168).

CCITT's recommendations do not address the details of the national portions of numbers. Rather, each nation determines its own national form of numbering structure, and many consider such determinations to be a matter of national sovereignty. Moreover, technical requirements and service capabilities vary around the world. For example, whereas a ten-digit scheme may be required in the United States, smaller countries may require fewer digits to meet their respective numbering needs. Creating an international numbering administration will not change these facts or eliminate the diversity that currently exists among the various national numbering schemes.

Another area of concern is expense. A single international administration could be very costly due to the large number of variations in the national portions of the

⁹NOI, para. 28. In this Section, SBC assumes that the FCC's definition of international is not limited to World Zone 1, but that it encompasses all World Zones.

numbers (i.e., size, structure, special meanings, etc.), and due to the heavy demand that would be placed on a global administration. Although a centralized administration for a world-based scheme is documented in E.168 as an option, it is generally agreed to be simply a long-term goal, and is limited to a single personal numbering entity as opposed to numbering in general.¹⁰ For each of these reasons, there are clear political and other technical limits on the current viability of an internationally integrated numbering scheme.

V. FEATURE GROUP D CARRIER IDENTIFICATION CODES SHOULD BE EXPANDED. IMPLEMENTATION OF SUCH EXPANSION SHOULD BE FLEXIBLE.

The Commission seeks comment on a number of issues relating to Carrier Identification Code ("CIC") expansion for Feature Group D access. The issues include the costs of converting the code to a four-digit format; the benefits of the conversion compared to the costs; and the existence of alternatives.¹¹

The CIC expansion for Feature Group D access is necessary to accommodate future growth. Although the CIC expansion will be expensive,¹² it must be undertaken to

¹⁰I.e., the work in this area is limited to Universal Personal Telecommunications ("UPT")/Personal Communications Services ("PCS").

¹¹NOI, paras. 36 through 38.

¹²SBC has identified a potential expenditure of at least \$100 million attributable to Feature Group D CIC expansion.

ensure that enough codes are available to route the traffic of existing and future carriers, as well as certain end user customers.

CIC expansion for Feature Group D has been planned for many years, and at this point no other technical or agreed upon alternative realistically exists to replace the planned four-digit format.¹³ Guidelines on the four-digit format have been approved by the ICCF and adopted by the industry. The guidelines govern not only the assignment, but the recall, transfer and use of the codes. Adherence to the guidelines should be recognized and continued.

CIC expansion for Feature Group D access should be flexible and should not be dictated on either a forced or a flash cut basis. Some latitude should be afforded in the implementation process. Sufficient time to implement CIC expansion should be allowed, and local exchange carriers ("LECs") should not be forced to incur such costs if sufficient demand does not exist. In this manner, significant costs of satisfying the required CIC expansion could well be mitigated.¹⁴

¹³Although a concept known as "sectorization" was introduced in the CIC workshops, it was not viewed as an acceptable alternative by certain industry groups, and therefore was not adopted.

¹⁴In addition, the Commission should allow customers to dial 10XXX or 101XXXX to reach the carrier of their choice for a permissive period of only eighteen months after the end of the implementation period. That is, if the implementation period is twenty-four months or thirty-six months, the permissive period would end eighteen months

SBC's telephone subsidiary is planning to implement the Feature Group D expansion process and expects to incur the associated costs within the next two years. If the Commission is going to take any action to alter the course of events for the Feature Group D CIC expansion process, it should announce that intention immediately in order to prevent unnecessary expenditures and confusion in the industry. In addition, the Commission should adopt mechanisms to allow all costs incurred by the LEC industry attributable to the Feature Group D CIC expansion to be recovered.

VI. NUMBERING SCHEMES FOR PERSONAL COMMUNICATIONS SERVICES SHOULD NOT BE DETERMINED IN THIS PROCEEDING.

The Commission seeks comment on what it can do, in terms of numbering, to foster Personal Communications Services ("PCS").¹⁵ Numbering, even though it is relevant to some extent, will not dictate the future of PCS. PCS development will depend more on customer demand, service attributes, and open license eligibility than on numbering plans. As a consequence, any PCS numbering plan should be

after that implementation date. This approach would be in the public interest in that it would allow customers to continue to reach those carriers through such dialing for a limited extension period.

¹⁵NOI, para. 40.

flexible and capable of responding to technological and market changes.¹⁶

The fact is that PCS is still in its infancy and PCS technology is evolving daily. Therefore, it would be premature and unwise to limit PCS development by judging PCS numbering issues based upon what we know today. Forced definitions of PCS numbering should not be established at this time.

Moreover, PCS numbering should not be technology limited. The NANP administrator and appropriate industry bodies should be given more time to analyze the PCS industry and to develop guidelines prior to the FCC taking any action. It should also be noted that international agreements (E.168 and others) have been developed but are based on a different definition of service than the current

¹⁶For example, the currently proposed PCS SAC (Service Access Code) could evolve into a single non-geographic numbering guideline which supports service provider portability via a database (where an end user retains his or her number and can change his or her service provider at will), and such an evolution should not be limited by premature decisions on PCS numbering. In addition, numbering issues and access to numbers should not be allowed to create a competitive advantage or disadvantage for existing PCS providers (e.g., cellular) vis-a-vis newly licensed PCS providers or vice versa, especially in terms of numbering resources. All PCS providers should be able to request and obtain any combination of numbering resources necessary to offer their services. Requests and assignments should be handled in a uniform, fair, and impartial manner. Numbering resources should be assigned for non-geographic wireless PCS throughout World Zone 1. And uniform assignment guidelines should not restrict the manner in which any carrier implements a service using either geographic or non-geographic numbering resources.

work being developed in the U.S. Given this fact, more time and work will be required to facilitate a certain level of compatibility.

VII. A DECISION ON LOCAL EXCHANGE NUMBER PORTABILITY SHOULD LIKEWISE NOT BE MADE AT THIS TIME.

The *NOI* seeks comment on the costs and feasibility of local number portability, and on the lessons learned from implementing number portability for 800 services.¹⁷ SBC believes that the perceived need for such portability may not justify the magnitude of the changes and costs that would be required to implement the service. Indeed, SBC anticipates that the financial impact of implementing local exchange number portability would be as significant as, if not greater than, any major structural change implemented to date, including equal access and Signaling System 7. Implementation of local exchange number portability would require changes to the existing network infrastructure, as well as additions of significant proportions to the network.¹⁸

¹⁷*NOI*, para. 41. In commenting on this issue, SBC assumes that the Commission is referring to "local exchange" number portability when it refers to local number portability. Moreover, SBC's comments are based on the premise that an 800 database type technology would be utilized to implement local exchange number portability.

¹⁸SBC estimates that such changes and additions to its telephone subsidiary's network could exceed a half billion dollars for switch feature development, Service Control Point functionality, and additional Signal Transfer Point deployment, to say nothing of the costs required for operational support and billing systems.

Moreover, it has taken a decade to achieve 800 number portability, and to the extent it has occurred,¹⁹ such implementation has demonstrated that it is unwise and costly to require a number portability service before the technical capability to provide the service is fully demonstrated and economically available. When the technology lags behind the other elements of a service offering, implementation becomes less controlled and creates a greater potential in terms of risk to service reliability.

Since local exchange number portability will be far more expansive and expensive than 800 number portability, the only prudent course is to proceed cautiously in this area, and to fully evaluate whether the need for such portability justifies the substantial associated network changes and implementation costs. A decision on that issue obviously requires more consideration and cannot be made at this time.

VIII. CONCLUSION.

The NANP administrator will have an increasing number of responsibilities, and should be fully qualified and staffed with knowledgeable and experienced personnel. The NANP administrator should be staffed, and/or receive advice, from all segments of the industry. A single industry numbering forum should be established to provide

¹⁹800 number portability will not take full effect until after May 1993, and only after such implementation will all of the problems and unique challenges associated with such implementation be fully identified.

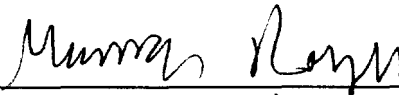
numbering guidelines and technical advice to the NANP administrator. The creation of an industry advisory council for dispute resolution should also be considered. All recipients of, and users who benefit from, numbering resources should be required to fund the process. Lastly, if a change in the numbering administrator is ordered, in no event should it take place prior to full interchangeable numbering code implementation.

Feature Group D CIC codes should be expanded. No realistic technical alternative exists to replace the planned four-digit format. Rather than a mandated Feature Group D expansion implementation process, some latitude for deployment should be afforded. Any Commission action that would alter the implementation process should be taken immediately to avoid unnecessary costs and confusion. Also, a recovery mechanism for Feature Group D code expansion costs should be established.

Decisions on numbering for PCS and local exchange number portability would be premature at this point. An internationally integrated numbering plan is not currently feasible beyond E.164 and E.168.

Respectfully submitted,

SOUTHWESTERN BELL CORPORATION

By: 
James D. Ellis
William J. Free
Mark P. Royer
One Bell Center, Rm 3524
St. Louis, MO 63101-3099
(314) 331-2992

ATTORNEYS FOR
SOUTHWESTERN BELL CORPORATION

December 28, 1992

CERTIFICATE OF SERVICE

I, Mark P. Royer, hereby certify that copies of the foregoing Comments Of Southwestern Bell Corporation have been served by first class United States mail, postage prepaid, on the parties listed on the attached.


Mark P. Royer

December 28, 1992